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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,443	04/13/2004	Richard W. Wien	87471F-P	4807

7590
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12/28/2006

EXAMINER

HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
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1724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/823,443	Applicant(s) WIEN ET AL.	
	Examiner Peter A. Hruskoci	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/13 and 10/18/04, and 11/7/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 19-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-18, drawn to a method for removing metal ions from solution, classified in class 210, subclass 749.
- II. Claims 19-26, drawn to a method of bottling a liquid classified in class 141, subclass 1.
- III. Claims 27-37, drawn to an article, classified in class 424, subclass 400.

The inventions are distinct, each from the other because of the following reasons: The method of Group I does not require bottling a liquid or inhibiting growth of microbes as in the method of Group II. The article of Group III can be used in a materially different method from Group I and II, such as a method for separating biological fluids.

Because these inventions are independent or distinct for the reasons given above and the inventions have acquired a separate status in the art in view of their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Frank Pincelli on 12/19/06 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-18.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The disclosure is objected to because of the following informalities: In the specification on page 1, the Serial Nos. of the related applications should be included.

Appropriate correction is required.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is considered incomplete because it is essential that the instant method include a step for removing a selected metal-ion from a solution. In claims 11 and 12 "such as" is vague and indefinite because it is unclear how this term further limits the claim. Claims 2-18 depend from the above claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell et al. 5,854,303 in view of Teumac et al. 6,465,065. Powell et al. appears to disclose (see col. 5 line 24 through col. 8 line 34) a method of removing metal ions from a solution with a chelating or sequestering agent substantially as claimed. The claims differ from Powell et al. by reciting steps for filling, closing, and shipping the container. Teumac et al. disclose (see col. 7 line 13 through col. 11 line 45) that it is known in the art to utilize a polymeric carrier including a polycarboxylic acid chelate composition in a coating or liner for a container or bottle, or in a

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cap for closing an opening for filling or dispensing a beverage or pharmaceutical product. It would appear that the containers of Powell et al. and Teumac et al. can be shipped for use of the solution or product, and the solutions or product would include the recited pH, respectively. It would have been obvious to one skilled in the art to modify the method of Powell et al. by including the recited steps for filling, closing, and shipping, in view of the teachings of Teumac et al., to aid in contacting the sequestrant with the liquid in the container. The specific stability constant of the sequestering agent, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific liquid treated and results desired, absent a sufficient showing of unexpected results.


Claim 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell et al. in view of Teumac et al. as above, and further in view of Cook. The claim differs from the references as applied above, by reciting that the sequestering agent comprises specific derivatized nanoparticles having an attached metal-ion sequestrant. Cook disclose (see col. 10 line 5 line 41 through col. 15 line 45) that it is known in the art to utilize chelating agents anchored to nanoparticles to form protective coating for surfaces. It would have been obvious to one skilled in the art to modify references as applied above, by including the recited derivatized nanoparticles in view of the teachings of Cook, to aid in forming a protective surface for the container.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Peter A. Hruskoci
Primary Examiner
Art Unit 1724

12/20/06